DATE: 7/3/73

DISCIPLINE: ENVIRONMENT

TITLE: APPLICATION OF REMOTE SENSING IN THE STUDY OF VEGETATION AND SOILS IN IDAHO (MMC # 313-3)

PRINCIPAL INVESTIGATOR:

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SUMMARY: Emphasis has been on verification of interpretation of autumnal imagery by ground truth inspection. Aided by U. S. Geological maps to locate ourselves on the ground because of insufficient resolution of ERTS imagery to show secondary and unimproved roads, more than 100 locations were inspected and the vegetation/soil characteristics documented during this report period. A major limitation of autumnal imagery was the inconsistency with which sagebrush dominated areas were distinguishable from adjacent areas where the sagebrush had been removed by past fires and/or insects and which are presently dominated by annual vegetation. Both the sagebrush and annual vegetation are dormant during the late summer and fall. Cursory examination of spring imagery (April) shows additional detail for sagebrush vegetation. Hopefully the May and June imagery will show additional features of the vegetation not discernible in autumn or early spring.

Although little difficulty was encountered in detection of recent and well established rangeland seedlings, those that have become reinvaded by sagebrush or were initially poorly established and contain considerable amounts of annual vegetation were not consistently identified in autumn and early spring imagery.

U-2 imagery was found to be highly useful in delineating vegetation. Spring and early summer imagery were found to be more useful for vegetation interpretation than late fall imagery. In the zeric sagebrush portion, "slick spot" soils were readily identifiable. Minor roads and trails also showed well and helped greatly with orientation on large range areas.